Freeform Search

10/021840

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Term: L12 and (DNA and nucleic acid$1)

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Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ			
L13	L12 and (DNA and nucleic acid$1)	10	L13
L12	L11 and probe$1	11	L12
L11	L10 and electrostat$2 bond$4	21	L11
L10	L9 and (dextran sulfate or mucopolysaccharide or sulfonyl or carboxyl or polypeptide)	3744	L10
L9	amino near5 surface$1	7137	L9
L8	L7 and osamu	26	L8
L7	L6 and surface	33	L7
L6	L5 and ionic	57	L6
L5	Seshimoto.in.	391	L5
L4	L3 and ionic	6	L4
L3	Shinoki.in.	803	L3
L2	L1 and ionic	13	L2
L1	iwaki.in.	5350	L1

```
 s amino(10a)surface#
L1       14886 AMINO(10A) SURFACE#

=> s l1 and (dextran sulfate or sulfonyl or carboxyl)
L2         776 L1 AND (DEXTRAN SULFATE OR SULFONYL OR CARBOXYL)

=> s l2 and electrostat##
L3          41 L2 AND ELECTROSTAT##

=> s l3 and (nucleic acid or DNA)
   2 FILES SEARCHED...
L4           4 L3 AND (NUCLEIC ACID OR DNA)

=>

=> d l4 1-4 bib ab kwic

L4   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:119872  CAPLUS
DN   140:160151
TI   Immobilization of biomolecules on substrates for analytical use by
     attaching them to adsorbed bridging biomolecules
IN   Matson, Robert S.; Rampal, Jang B.
PA   Beckman Coulter, Inc., USA
SO   U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S. Ser. No. 694,701.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   US 2004029156        A1    20040212    US 2003-427658         20030501
PRAI US 2000-694701       A2    20001023
AB   An assay article for detection first biomols. contained in a sample is
     described.  The assay article includes a substrate having a modified
     surface and a first biomol. directly adsorbed and immobilized on the
     modified surface of the substrate without linking moieties.  A second
     biomol. is bound to or adsorbed on the first biomol.  Also disclosed is a
     method of making the assay article.  A first biomol. (other than an
     adhesive protein) is contacted with a modified surface of a substrate.
     The substrate is dried to directly adsorb the first biomol. and immobilize
     it on the modified surface of the substrate without addnl. fixing steps to
     form an activated substrate.  Then, a second biomol. is contacted with the
     activated substrate under conditions sufficient for the first biomol. to
     bind the second biomol.
IT   DNA microarray technology
        (cDNA arrays; immobilization of biomols. on substrates for anal. use by
        attaching them to adsorbed bridging biomols.)
IT   Printing (nonimpact)
        (electrostatic; immobilization of biomols. on substrates for
        anal. use by attaching them to adsorbed bridging biomols.)
IT   Adsorption
     Biochemical molecules
     Drying
     Immobilization, molecular or cellular
     Immunoassay
     Ink-jet printing
       Nucleic acid hybridization
     Printing (impact)
     Protein microarray technology
        (immobilization of biomols. on substrates for anal. use by attaching
        them to adsorbed bridging biomols.)
IT   Amino group
       Carboxyl group
```

Hydroxyl group
Sulfhydryl group
(**surface**; immobilization of biomols. on substrates for anal. use by attaching them to adsorbed bridging biomols.)

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:570525 CAPLUS
DN 139:112709
TI Use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations
IN Garner, Harold R.; Horvath, Monica M.; Fondon, John W.; Pertsemlidis, Alexander
PA USA
SO U.S. Pat. Appl. Publ., 28 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003138778	A1	20030724	US 2001-998904	20011130
PRAI	US 2001-998904		20011130		

AB An apparatus, system and method for predicting single nucleotide polymorphisms (SNPs) is disclosed. The present invention generally includes steps for obtaining a variation predictiveness matrix and predicting one or more single nucleotide variations of a **nucleic acid** sequence based on the variation predictiveness matrix. The variation predictiveness matrix may be made by calculating the variation frequency from a first base to a second base in a dataset of two or more bases and determining a variation predictiveness value from the calculated variation frequency.
AB An apparatus, system and method for predicting single nucleotide polymorphisms (SNPs) is disclosed. The present invention generally includes steps for obtaining a variation predictiveness matrix and predicting one or more single nucleotide variations of a **nucleic acid** sequence based on the variation predictiveness matrix. The variation predictiveness matrix may be made by calculating the variation frequency from a first base to a second base in a dataset of two or more bases and determining a variation predictiveness value from the calculated variation frequency.
IT **DNA** shuffling
Post-translational processing
(adjustment in determining variation frequency; use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations)
IT **Electrostatic** force
Hydrogen bond
Polarization
(detection of nucleic acids with modifications in; use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations)
IT **DNA**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(methylation, detection of; use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations)
IT **Amino** group
Carboxyl group
Hydroxyl group
Sulfhydryl group
(on planar or spherical **surface** for detecting single nucleotide polymorphisms; use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations)
IT **DNA**

Proteins
RNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(structure adjustment in determining variation frequency; use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations)

IT Computer application
DNA sequences
Databases
Disease, animal
Mutation
(use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations)

IT 561330-56-1, **DNA** (human gene BDKRB2 fragment) 561330-57-2, **DNA** (human gene BDKRB2 fragment) 561330-58-3, **DNA** (human gene BDKRB2 fragment) 561330-59-4, **DNA** (human gene BDKRB2 fragment) 561330-60-7, **DNA** (human gene BDKLRB2 fragment) 561330-61-8, **DNA** (human gene EDNRA fragment) 561330-62-9, **DNA** (human gene ADBR1 fragment) 561330-63-0, **DNA** (human gene ADBR1 fragment) 561330-64-1, **DNA** (human gene ADBR1 fragment) 561330-65-2, **DNA** (human gene ADBR1 fragment) 561330-66-3, **DNA** (human gene ADBR1 fragment) 561330-67-4, **DNA** (human gene ADBR1 fragment)
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; use of SNIDE (single nucleotide variation identification) matrix for detection of disease-causing point mutations)

L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1965:60941 CAPLUS
DN 62:60941
OREF 62:10845g-h,10846a-h
TI Heparin and related polyionic substances as virus inhibitors
AU Vaheri, Antti
CS State Serum Inst., Helsinki
SO Acta Pathologica et Microbiologica Scandinavica, Supplementum (1964), 171, 98 pp.
CODEN: APMUAN; ISSN: 0065-1486
DT Journal
LA English
AB This report describes the antiviral action of certain polyionic substances, (heparin (I), heparinoids, other polyanions, and polycationic anti-I agents). I, a natural polyanion, has a potent inhibitory effect on the infectivity of herpes simplex virus (HSV) in cell cultures. The anti-HSV action of I occurred during the early interaction of HSV and cells and was reversible. Upon dilution of the I-HSV mixts., the inhibitory action of I was eliminated and HSV was quant. recovered. I had no effect on the intracellular replication or the direct cell-to-cell spread of HSV. The min. effective dose of I in saline medium was 0.1 γ/ml. and in, e.g., 50% serum, 2 γ/ml. Inhibition of HSV by I was antagonized by the following substances in increasing order of effectiveness: serum, albumin, hyaluronidase, thrombin, the polyamine spermine, and, in particular, the polycationic anti-I agents Polybrene and protamine sulfate. The inhibitory effect of I was inversely proportional to the concentration of serum. Thus I required no serum cofactor in its antiviral action, in contrast to its antithrombin effect. The effect of I on HSV was dependent on the relative concentration of the polyanion and the virus in the plating medium and was a function of ionic strength. The reversible effect of I on HSV may be characterized as an association-dissociation reaction in which **electrostatic** forces are determinative. Most of the other

viruses or virus variants studied were resistant to I. These included one strain each of adeno 1 and 11, Coxsackie B 5, ECHO 9 and 13, vaccinia, measles, mumps, and Newcastle disease, certain strains of polio types 1 and 3 and of parainfluenza 1, 2, and 3, and 1 small-plaque and 2 large-plaque variants of vesicular stomatitis virus (VSV), as well as strains of certain bacterial viruses. In addition to the various strains of HSV, only the strains of pseudorabies, respiratory syncytial, and West Nile viruses, a strain of influenza B, and a variant of VSV (termed here the PP variant) were inhibited by I. Of the VSV strains studied, only the I-sensitive PP variant formed fewer and smaller plaques under agar than under CM-cellulose overlay. I inhibited the early interaction of the PP variant of VSV and cells only when the virus was prepared in the same type of cell culture that was used for testing the effect of I. Cultures of primary chick embryo fibroblasts and of continuous human amnion cells were employed. Furthermore, the sensitivity of the PP variant to I was significantly lower in the former than in the latter cell cultures. Thus, although the antiviral effect of the polyanions appear to be primarily the result of a direct action on the virus, a combined effect on the virus and the host cell was involved in some virus-cell systems at least. All the com. heparinoids studied, as well as **dextran sulfate**, exerted a potent I-like inhibitory effect on HSV. In contrast, certain other substances, e.g., various polymers, monomeric components of I, and agents acting on cell surfaces, displayed no inhibitory action on HSV, thus supporting the view that the polyanionic features were a prerequisite for antiviral action. Certain polyanionic substances, such as **DNA** and hyaluronic acid, which are not known as heparinoids, did not affect the infectivity of HSV. Thrombin, a physiol. target of I, enhanced the adsorption of HSV onto cells. In addition to I and the heparinoids stated above, various types of synthetic polycarboxyls, polyphosphates, and polysulfonates were powerful inhibitors of the early interaction of HSV and cells. However, the relation between the reversible (dissociable) and the irreversible (virucidal) action of the different polyanions on the virus showed wide variation. Whereas the inhibitory effect of I was reversible in all concns., the semisynthetic **dextran sulfate**, for example, had an irreversible effect in high concns. and many synthetic polyanions exerted an irreversible effect in all antiviral concns. The degree of irreversible effect on HSV correlated with the ability of the polyanions to agglutinate chicken red cells and with their toxicity to cell cultures. The polyanions studied had a potent I-like antithrombin action (and thus may be termed heparinoids), metachromatic activity, and a characteristic effect of altering the growth behavior of HeLa cells on glass. The biol. actions, including the anti-HSV effect, correlated largely with the net amount of anionic groups and the degree of polymerization of the mol. The polycationic anti-I agents Polybrene and protamine sulfate were powerful inhibitors of HSV themselves. Polybrene acted during the early interaction of HSV and cells and the effect was reversible. The sensitivity of viruses to these polycations was not associated with their sensitivity or resistance to I. Whereas I had no detectable effect on red cells, and the synthetic virucidal polyanions agglutinated only chicken erythrocytes, Polybrene agglutinated also guinea pig and human red cells. The charged groups of the polyionic substances employed were evidently responsible for the antiviral action. The sensitivity of a virus strain to I and heparinoids or to the polycationic agents might depend on the amount and distribution of elec. charged sites, such as cationic or anionic **amino** acid groups, on the **surface** structures of virus particles. I may have a physiol. role in inhibiting certain virus infections and the sensitivity or resistance of a virus strain to I in vitro may reflect the degree of virulence in vivo. The potential suitability of polyanionic substances for use as antiviral agents in vivo was also discussed.

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L4 ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2002:426199 BIOSIS
DN PREV200200426199
TI Probing the interaction of bovine cytochrome P450scc (CYP11A1) with adrenodoxin: Evaluating site-directed mutations by molecular modeling.
AU Usanov, Sergey A.; Graham, Sandra E.; Lepesheva, Galina I.; Azeva, Tamara N.; Strushkevich, Natalya V.; Gilep, Andrei A.; Estabrook, Ronald W.; Peterson, Julian A. [Reprint author]
CS Department of Biochemistry, University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Blvd., Dallas, TX, 75390-9038, USA
SO Biochemistry, (July 2, 2002) Vol. 41, No. 26, pp. 8310-8320. print.
CODEN: BICHAW. ISSN: 0006-2960.
DT Article
LA English
ED Entered STN: 7 Aug 2002
Last Updated on STN: 23 Sep 2002
AB The present study was undertaken to evaluate the role of positively charged **amino** acid residues proposed to reside on the proximal **surface** of bovine cytochrome P450 cholesterol side chain cleavage (P450scc, CYP11A1) and to determine which residues may be involved in protein-protein interactions with the electron carrier adrenodoxin (Adx). In previous studies, nine different lysine residues were identified by chemical and immunological cross-linking experiments as potentially interacting with Adx, while in the present study, two arginine residues have been identified from sequence alignments. From these 11 residues, 13 different P450scc mutants were made of which only seven were able to be expressed and characterized. Each of the seven mutants were evaluated for their ability to bind Adx, to be reduced, and for their enzymatic activity. Among these, K403Q and K405Q showed a consistent decrease in Adx binding, the ability to be reduced by Adx, and enzymatic activity, with K405Q being affected to a much greater extent. More dramatic was the complete loss of Adx binding by R426Q, while still retaining its ability to be chemically reduced and bind carbon monoxide. Independently, a homology model of P450scc was constructed and docked with the structure of Adx. Four potential sites of interaction were identified: P450scc:K403 with Adx:D76, P450scc:K405 with Adx:D72; P450scc:R426 with Adx:E73, and P450scc:K267 with Adx:E47. Thus, the biochemical and molecular modeling studies together support the hypothesis that K267, K403, K405, and R426 participate in the **electrostatic** interaction of P450scc with Adx.
AB The present study was undertaken to evaluate the role of positively charged **amino** acid residues proposed to reside on the proximal **surface** of bovine cytochrome P450 cholesterol side chain cleavage (P450scc, CYP11A1) and to determine which residues may be involved in protein-protein. . . Thus, the biochemical and molecular modeling studies together support the hypothesis that K267, K403, K405, and R426 participate in the **electrostatic** interaction of P450scc with Adx.
IT . . .

cytochrome P450scc [CYP11A1]: interaction; delta-aminovulinic acid: Sigma; electron carrier adrenodoxin; glucose-6-phosphate: Serva; glucose-6-phosphate dehydrogenase: Serva; isopropyl-1-thio-beta-D-galactopyranoside [IPTG]: Gibco; peptone: Difco; phenylmethane-**sulfonyl**-fluoride [PMSF]: Sigma; polyethylene-glycol: Serva; pregnenolone: Serva; protein-protein interactions; sodium cholate: Serva; tryptone: Difco

IT Methods & Equipment

DNA-sequencer A377: Applied Biosystem; Quick Change kit: Stratagene, laboratory kit; SDS-PAGE [SDS-polyacrylamide gel electrophoresis]: Electrophoretic Techniques, assessment method; Shimazu UV-3000 spectrophotometer:. . .

RN . . . 630-08-0 (carbon monoxide)
57-88-5 (cholesterol)
37292-81-2 (cytochrome P450scc)
37292-81-2 (CYP11A1)
56-73-5 (glucose-6-phosphate)
9001-40-5 (glucose-6-phosphate dehydrogenase)
367-93-1 (isopropyl-1-thio-beta-D-galactopyranoside)
367-93-1 (IPTG)
329-98-6 (phenylmethane-**sulfonyl**-fluoride)
329-98-6 (PMSF)
25322-68-3 (polyethylene-glycol)
145-13-1 (pregnenolone)
361-09-1 (sodium cholate)
7365-45-9 (HEPES)
74871-11-7 (BIO-GEL HTP)

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=> d his

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     FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE' ENTERED AT 14:17:32 ON 20 OCT 2004
L1         14886 S AMINO(10A) SURFACE#
L2           776 S L1 AND (DEXTRAN SULFATE OR SULFONYL OR CARBOXYL)
L3            41 S L2 AND ELECTROSTAT##
L4             4 S L3 AND (NUCLEIC ACID OR DNA)
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Shinoki (1978, 1983) is presented. The annual march of St,H and Sb,H is characterized by a curve with two peaks in May and August. This is mainly because of the rainy season (bai-u) in the period June to July in this district. The procedures for calculating radiation components incident on an inclined plane were used to make clear the radiation condition in the Aso caldera that is an important animal husbandry area in Japan. Interception of direct solar radiation by surrounding mountains or hills was evaluated using the Digital National Land Information for Geographical Survey Institute. The Aso caldera was chosen as a test area for studying effects of radiation condition on plant productivity.

AB. . . . of the monthly totals of St,H, Sb,H and Sd,H at the Aso Observatory calculated by the method of Yoshida and **Shinoki** (1978, 1983) is presented. The annual march of St,H and Sb,H is characterized by a curve with two peaks in. . .

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=> s seshimoto.in.
L6            0 SESHIMOTO.IN.

=> s amino (10a)surface#
L7        14886 AMINO (10A) SURFACE#

=> s l7 and (dextran sulfate or sulfonyl or carboxyl)
L8          776 L7 AND (DEXTRAN SULFATE OR SULFONYL OR CARBOXYL)

=> s l8 and electrostat##
L9           41 L8 AND ELECTROSTAT##

=> s l9 and (probe# (5a)(DNA or nucleic acid#))
   2 FILES SEARCHED...
L10           0 L9 AND (PROBE# (5A)(DNA OR NUCLEIC ACID#))

=> s l9 and (nucleic acid or DNA)
   1 FILES SEARCHED...
L11           4 L9 AND (NUCLEIC ACID OR DNA)

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Connection closed by remote host
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